

COMAL Development Group - 15th August 1986

The UniComal Proposals (their document dated August 14, 1986):

1 Print Separators:

The terminology in the Table was changed slightly - "Space to ZONE" under "OLD" and "Space ZONE" under "New" being replaced by "Obey ZONE". This proposal was then carried.

2 IN Operator

This proposal was defeated, 9 voting in favour out of 15 present. The implementors met on Friday evening and AGREED that the standard should say that:

a\$ IN b\$

is undefined if a\$ is the null string.

3 Dyadic Multiplication Of Strings

The second sentence of Para 2 of proposal 3 should be amended to read:

The integer operand can be an expression evaluating to a non-negative value which, if real, is converted to integer by rounding.

This proposal was then carried unanimously.

4 An Addition To The UniComal Document Of 14 August 1986

Extension of the statement form:

<variable>:<unary operator><expression> to include the cases

a\$:+<string expression> // meaning a\$:=a\$+<string expression> and

a\$:*<numeric expression> // meaning a\$:=a\$*<numeric expression>

This proposal was CARRIED by 13 votes out of 14 present.

[The original proposal spoke of 'string constants' but it is assumed that the extension will apply to string variables, constants and function calls. John Clack]

COMAL Standards Group - 16th August 1986

Angus Quin was asked to chair the meeting.

Voting took place on the TeleNova Proposals 1 - 14

Proposals 1 and 4 - 14 inclusive FAILED.

Proposals 2 and 3 were AGREED, subject to the change previously AGREED by the Development Group that in the 'entire array assignment statement' the array name must be followed by Parentheses enclosing n-1 commas, where n is the dimension of the array.

eg,

```
10 DIM a(10,10,10)
20 a(,,)=1 // or expression
30 PRINT a;
```

.. assigns the real value 1 to every element of a (line 20) and prints the entire array (line 30).

'The entire array starting with a(1,1) .. a(1,2).. a(10,10) is printed
.....'

[The order in which COMAL arrays are stored does not (so far as I can see) appear in the Standard - though perhaps it should - and seems to be implementation-dependent. Telenove now state that the array would be Printed out by columns. John Clack]

It was AGREED that the TeleNova proposals 15-18 and the UniComal proposals 1-4 would be decided by Postal Ballot of the members of the Standards Group, as prescribed in the Rules (since the requisite notice of these proposals had not been given before the meeting). This Ballot to be organised by the Secretary, at his earliest convenience.

COMAL Development Group - 16th August 1986

Discussion Session

5 GRAPHICS

BG suggested that turtle and x-y graphics commands be regarded as an extension to the Standard and he AGREED to make a proposal to the next meeting.

6 DATA STRUCTURES

BH would like a BOOLEAN type - a 1-byte variable satisfying Boolean algebra.

Several spoke in favour of having a RECORD structure and BC suggested a LIST structure.

The implementers had discussed Data Structures at their Friday evening meeting and had AGREED that RECORDS were a good idea but they wanted to make sure that implementing them would not inhibit dynamic data structures.

7 Miscellaneous

7.1 Removing Items From The Standard

BH Pointed out that there was no mechanism for removing things from the Standard.

7.2 Standard Definition

BH also spoke in favour of changing the level of definition of the Standard so that facilities were defined in a more abstract way which could then be particularised to actual manifestations. He gave as an example the REPEAT - UNTIL structure as being a particular manifestation of 'loop through a block of statements, testing for exit from the loop at the end of the block'.

The advantages he saw from this change included:

1. It could liberate implementers from the constraint of 1 natural language by allowing token substitution (but there could be a default set based on the present set).
2. Much more could be put in the Kernel by resolving the present disputes over details - there could be a SETUP mechanism as in OBase III.

In reply, PB felt there was no point until the COMAL standard is published - we have not yet faced the problem of how to do this e.g. through the EURO Standards Organisation, or HMSO or whatever. He was also opposed to 'soft' tokens as they would destroy portability. MK felt that the French would still say "not invented here"!

7.3 Eval

DAP asked if an EVAL function would be feasible (the argument of the function would be a string expression and the value real). MK and PB AGREED that the RUN-time problems would be horrendous but that machine-code package might be feasible.

7.4 Function As A Parameter

EVAL having been declared EVIL, DAP asked if it could be possible to pass a function as a PROC parameter. PB replied that Tele can pass a procedure name. MK didn't know why this had been left out. BH asked why FUNC returns only scalar values? There was a general feeling that it should be possible to return arrays.

John Clack
(Secretary)
10 October 1986